State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

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M/045/017

March 15, 1996

CERTIFIED MAIL
(Return Receipt Requested)

Glen Eurick
Barrick Mercur Gold Mine
P.O. Box 838
Tooele, Utah 84074

Dear Mr. Eurick:

Subject: Valley Fill Leach Area #3, Conceptual Closure Plan, Permit No. UGW450001

We have completed our review of the Conceptual Closure Plan dated January 8, 1996. The plan consisted of three parts. The first part, Attachment A, was a response to our comments of October 6, 1995, concerning the original Conceptual Closure Plan submittal. The second document is the infiltration and ground water modeling report. Both, Attachment A and the modeling report, were prepared by Tri Technics Corporation. The last part of the submittal is the second revision of the Conceptual Closure Plan itself.

In our letter of February 17, 1993, we outlined closure requirements for Area #3. We defined clean closure criteria for heap leach rinsing as less than 0.2 mg/l cyanide-WAD and the ground water quality standards for other pollutants. We also stated that pollution levels above clean closure criteria could be justified if it was demonstrated that there would not be a detrimental impact to ground water. The Infiltration and Transport Analysis submitted by Barrick indicates that detrimental impacts may occur based on the proposed Conceptual Closure Plan. We also stated that Barrick will have to meet BAT standards for closure at Area #3. Based on our review of the Conceptual Closure Plan we have determined that the proposal does not meet BAT as defined in the ground water regulations. Therefore, Barrick must revise its plan to insure that BAT is implemented and that detrimental impacts will not occur.

The proposed Conceptual Closure Plan is incomplete in that it does not meet the definition of BAT. To achieve BAT it is required to effect the maximum reduction of pollutants achievable.

BAT can only be achieved by the best application of standard practices, taking into account site specific constraints and the potential impact to ground water. Without specific evaluation of the alternatives, BAT cannot be defined. BAT will not be achieved by implementation of the proposed Conceptual Closure Plan because three aspects of the plan fail to achieve maximum pollutant reduction. The first is the proposed neutralization plan. The second is Barrick's apparent desire to couple the de-watering and neutralization periods. The third is the inadequate cover design proposal. In order to resolve the these remaining issues Barrick will be required to revise and resubmit the second and third parts of the submittal, the Conceptual Closure Plan and the Infiltration and Solute Transport Analysis. A discussion of these issues appears below.

Cover Design

Based upon discussions held during the closure plan development process, only two alternative cover designs were considered. The cover designs evaluated turn out to be inappropriate for Area #3. The problem is that the comparison between a clay cover and a soil cover, which demonstrate performance equivalency, are based on an inadequate clay cover design. There are three problems with the clay cover alternative Barrick evaluated. First, the clay cover does not contain a capillary barrier beneath the topsoil. Second, the topsoil layer should be at least 18 inches thick to retain moisture above the capillary barrier for future evapotranspiration. Finally, the clay itself is beneath 4 feet of topsoil and subsoil. An example of a much more effective cover would be 18 inches of topsoil, 12 inches of granular material or sand, 12 inches of clay and 12-36 inches of subsoil. Such a cover configuration would meet the definition of BAT required for Area #3. Neither of the two covers evaluated do.

It is a relatively simple task to use the HELP model to evaluate a number of cover design alternatives. The attached Table 1 illustrates the results of such an analysis. Barrick must evaluate additional alternatives and propose the one that provides a higher level of environmental protection than the two that were previously evaluated.

Neutralization Plan

The resubmitted plan must outline a proposed neutralization study plan that includes an evaluation of additional rinsing and neutralization alternatives. Specifically, we are not satisfied with the proposed use of tailings impoundment water for rinsing of the leach pad ore without the addition of a fresh water polishing step. The tailings impoundment water has been neutralized with respect to cyanide, and thus, may be effective as a mechanism for cyanide removal. However, it is not clear that a final rinsing characteristic of less than 0.2 mg/l cyanide-WAD can be achieved utilizing tailings water. Additionally, the tailings water contains metals, nitrates, dissolved solids and other pollutants in concentrations similar to the solutions applied during leaching. Therefore, it is not reasonable to expect that the rinsing with tailings water will be effective in reducing non cyanide pollutants.

The only polishing step proposed by Barrick is to allow natural precipitation to continue rinsing the subore for 2-3 years. Based on additional HELP modeling analysis, performed by Dennis Frederick, average infiltration into the subore with no soil cap or cover is 6.2 inches per year (6.2 inches if evaluated over a 10 year period, 3.8 inches if averaged over a 30 year period). Over 28 acres this is about 4.7 million gallons annually. In Attachment A, it is estimated that there will be about 79 million gallons of pore water in the leach at the time of closure. The predicted infiltration of natural precipitation over 3 years represents less than 20% of one pore volume of rinsate. Therefore, natural precipitation is not likely to have much impact in terms of subore neutralization.

In order to evaluate the potential benefits of fresh water rinsing on the expected long term pollutant concentrations from Area #3, column neutralization studies must be performed. Barrick states on page four of its closure plan that "... column neutralization or pilot studies would be generally inappropriate for determining the actual response of run-of-mine heap leach facilities and are therefore not scheduled to be initiated for VF3." We agree with this statement in that such studies may not yield good estimates of specific long term pollutant concentrations. Studies of this type are appropriate, however, for comparisons between alternative rinsing strategies, such as determining the benefits of fresh water rinsing as a polishing step in the overall rinsing sequence. Column studies could also provide answers to other questions left unaddressed by Barrick, including:

1. How many pore volumes of tailing solution will it take to reduce free-cyanide concentrations to the target level of 0.2 mg/l?

2. Can the addition of ferric-sulfate complement the rinsing in terms of lowering long term arsenic concentrations?

3. Can the addition of a chemical reagent shorten the time required to neutralize cyanide levels in the heap leach?

Barrick should include a column neutralization study plan in the next revision of the conceptual closure plan. A schedule for implementation of the study plan, following Executive Secretary approval of the study plan, must also be included. Because closure activities are expected to commence as soon as 1997, it is essential that Barrick begin this study as soon as possible.

De-Watering

The requirement for maintaining the production cistern for four years, following the placement of the final cover, is based on the results of the HELP modeling that indicates most pore water will drain down in the first four to six years. By actively applying and recirculating tailings impoundment water during the neutralization phase, the pore water will be recharged and thus drain down will not begin until rinsing is finalized. Therefore, the closure plan must recognize

that it is only after the cessation of rinsing, and the placement of the cover, does the four year drain down period commence. Parts 3.1 and 3.2 of the Conceptual Closure Plan seems to contradict the above interpretation of the HELP modeling. Because subsequent steps in the modeling process depend on HELP model output, the plan must be revised in order for the modeled drain down to be representative of the actual closure plan.

Additional Closure Plan Review Comments

In addition to the two substantive issues discussed above, the revised plan should also address the following comments, questions and concerns:

1. Given that fresh water rinsate could be recirculated until pollutant concentrations approach that of the tailings water, how much fresh water would actually be required to provide a polishing step for the rinsing process? (Part 3.1, page 5, paragraph 4)

2. Any Area #3 solutions sent to the tailings pond must be cyanide detoxified prior to discharge. (Part 3.1, page 5, paragraph 3)

3. One purpose of the conceptual closure plan process is to provide a rational basis for determining final rinsate characteristics. It is our position that final rinsate concentrations need not obtain some arbitrary standard. Although target levels are appropriate. Target levels for neutralization are the ground water standards where achievable and site specific alternative levels when standards cannot be achieved. The conceptual closure plan should list the target levels for the pollutants of concern. (Part 3.1, page 5, paragraphs 5 & 6)

4. The current conceptual closure plan makes no mention of the required monitoring of the production cistern. It is suggested that flow measurements be reported on a monthly basis and that water quality be analyzed quarterly. (Part 3.2 & 3.3, page 6)

5. As discussed above, the four year solution management program begins following the placement of the final cover. Breaching of the liner cannot occur until the end of this period, and is further contingent upon indications from flow monitoring that the bulk of the drain down has occurred as predicted. This also applies to the removal of pregnant solution pumping system components. (Part 3.2 & 3.3, page 6)

6. Because the production cistern only allows for the pool level to be pumped down to a nominal 10 feet, final rinsate characteristics, if measured at the product cistern, will be a combination of rinsate, pool water and pore water drain down. This obviously will complicate the determination of whether or not target levels have been achieved. It is, therefore, all the more critical that BAT be determined in advance. (Part 3.1, page 5, paragraph 5)

Infiltration and Solute Transport Analysis

The Infiltration and Solute Transport Analysis modeling report outlines the three step process utilized to evaluate potential impacts to ground water based on the proposed closure plan. The first model is the HELP model which is used to determine the volume of leachate the facility is likely to produce over the long term. This model was used to compare the performance of a clay/subsoil/topsoil/vegetative growth cover to a subsoil\topsoil\vegetative growth cover. The model results indicate that the addition of clay to the cover layer sequence results in a slightly higher average annual infiltration rate into the subore. As discussed above, the evaluation of only two cover alternatives, including a flawed clay cover design, must be supplemented by the evaluation of additional alternatives.

The second step in the analysis is to assume that the leachate from the heap leach mixes completely with the underlying aquifer water resulting in a mixed water quality directly beneath the discharge. The transport of resultant water (plume) from the point of discharge to the nearest monitoring well was then modeled using the Solute analytical model. The specific Solute routine utilized was the Plume-2D analytical model.

The utilization of the Plume-2D Solute model was unfortunately flawed. Among the underlying model assumptions, as outlined on page 11 of the Theory and User Instructions manual, is the assumption that the system modeled can be represented by "one-dimensional steady-state uniform regional flow in the x-direction (recharge rates from the pollution source are small and do not influence flow field)." Unfortunately the recharge rate from the pollution source is nearly 4 times greater than the aquifer flow. Based on the assumption of complete mixing of the previous step the extra volume of water moving through the system would increase the velocity of water moving through the flow system along the infiltration front. Flow velocity in adjacent portions of the aquifer would also be influenced, although not as much as along the infiltration front. Localized mounding of ground water may also occur. Therefore, both the one-dimensional steady state and recharge rate assumptions of the model are invalid. Therefore, it would be inappropriate for us to approve the model as being representative of the flow system since we can no longer be assured that we have been conservative in our approach. Discussions concerning this matter should be held at the earliest possible time to develop an alternative transport modeling scheme.

Additional Infiltration and Transport Analysis Comments

If we overlook the problem with the model assumptions, the results themselves are problematic. The model predicts that protection levels for arsenic, nitrate, selenium and thallium would be exceeded at MW-13. Given the problematic nature of this well, to date, it is not hard to imagine these predictions becoming reality. Although many conservative assumptions have been made in the three step infiltration and transport analysis, the results still indicate that the proposed conceptual closure plan is inadequate.

1. In the introduction, the report states that tailings reclaim solution will be supplemented with precipitation. The report does not attempt to estimate the volume of this supplemental precipitation. (Section 1.0)

2. The report states that the input value for initial water content in the subore was set at 69% of field capacity based on data provided by Barrick. The initial moisture content is important in terms of the total quantity of pore water and the drain down time. Barrick's data, which supports the 69% assumption, should be included in the report.

3. One difficulty in making a direct comparison between the clay cap and the soil cover, is the absence of a soil barrier level in the soil cover. In order to directly compare the infiltration through each of alternative covers, the bottom 12 inches of the subsoil should be considered a barrier level having the exact characteristics of the sub soil. Infiltration into the subore could then be directly compared. This should be kept in mind when reevaluating additional cover designs utilizing the HELP model. (Section 5.2.5 and Table 7)

4. The report states that the lateral drainage water from the tailings blanket "is modeled as being collected by the cistern for the first four years after final cover placement. The HDPE and clay liners are then perforated in the fifth year. Lateral drainage from the tails blanket is then assumed to infiltrate through the perforations into the underlying mine waste rock foundation." The HELP model does not have the flexibility to allow for the perforation of the liner, and it doesn't allow for configuration changes in any year after the start of the model run. In this sense the above statements are misleading. (Sections 5.2.6 & 5.2.8)

5. In the introductory discussion on the mixing model, the assumptions of the model are discussed. The assumption that no retardation of dilution occurs in the vadose zone is listed as a conservative assumption. The following discussion then implies that under actual conditions retardation and dilution will occur. This assumption does not appear to be necessarily conservative, but is rather a good assumption given that the thin layer of high mountain alluvium and the fractured limestone beneath the cistern are not conducive to either storing water for dilution or to retardation. Thus, we disagree that attenuation and retardation will be significant in the vadose zone. (Section 6.0)

6. Given that MW-13 is the well mostly likely to be impacted, it is questionable why the background water quality concentrations for MW-11 were used in the mixing model. The resulting predicted TDS protection level exceedence at 400 feet from the point of discharge may not occur if MW-13 background TDS values are utilized.

The Ground Water Quality Discharge Permit for Area #3, No. UGW450001, requires Barrick to modify and/or update the Conceptual Closure Plan as required by the Executive Secretary. It further states that a revised plan is due 45 days following receipt of notice. However, these issues are complex and based on the last revision cycle we believe 90 days turn around time to be more reasonable. Accordingly, please resubmit a revised Conceptual Closure Plan within 90 days of receipt of this notice. Because our review of the proposed Conceptual Closure Plan raises a number of issues, it may be beneficial to meet to discuss these issues. If you have questions or would like to arrange a meeting, please contact Dennis Frederick at (801) 538-6038.

Sincerely,

Utah Water Quality Board

Don A. Ostler, P.E.
Executive Secretary

Enclosure

DAO:DAF:wfm

cc: Brian Slade, Tooele County Health Dept.
J.B. Brown, Dames and Moore

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FILE:GW PERMIT No. UGW450001

Barrick Mercur Area #3
Cover Design Alternative - Infiltration Evaluation

HELP - File Name	42	41b	41c	42b	42c	42c3	42c4	42c2	42d	42e	42f
Soil Cover Layers	12-topsoil	12-topsoil	24-subore	12-topsoil	12-topsoil	18-topsoil	24-topsoil	12-topsoil	12-topsoil	12-topsoil	12-topsoil
	36-subsoil	24-subsoil	12-subore	12-clay	12-sand	12-sand	12-sand	12-sand	12-sand	36-subsoil	36-subsoil
	12-clay	12-subsoil	subore	36-subsoil	12-clay	12-clay	12-clay	36-subsoil	12-clay	12-sand	12-sand
	subore	subore		subore	36-subsoil	36-subsoil	36-subsoil	subore	36-subsoil	12-clay	12-clay
					subore	subore	subore		subore	subore	subore
ave infiltration (in/yr)	1.67	1.55	3.83	0.9	0.56	0.47	0.41	2.68	0.93	0.66	1.4
notes:	evaluated	evaluated	no cover		sand as	sand as	sand as	sand as	sand as	sand as	sand as
	by Barrick	by Barrick	scenario		lateral	lateral	lateral	lateral	vertical	lateral	vertical
	not proposed	proposed			drainage	drainage	drainage	drainage	percolation	drainage	percolation
		alternative			layer	layer	layer	layer	layer	layer	layer
					320 ft	320 ft	320 ft	320 ft		320 ft	
					drainage	drainage	drainage	drainage		drainage	
					distance	distance	distance	distance		distance	
								subsoil as			
								barrier			
								layer			
Average Infiltration is for a 30 year period as determine by the HELP model.											

Table 1

State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

Michael O. Leavitt
Governor
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YOUR COPY

February 17, 1993

Glen Eurick
Environmental Affairs Coordinator
Barrick Mercur Mine
P.O. Box 838
Tooele, Utah 84074

RE: Barrick Mercur Dump Leach Closure Plans: Response to Submittal and Correspondences Dated; October 29, 1992; October 9, 1992; October 2, 1992; July 10, 1992; January 27, 1993; October 28, 1991

Dear Mr. Eurick:

The Division of Water Quality is in receipt of the closure plans submitted by Barrick for Dump Leach Areas 1, 2 & 3. Each of these facilities is unique when viewed from the perspective of the Water Quality Act and the Ground Water Quality rules. However, given the similarity in design, function and potential risk to the environment, it would be prudent to derive common requirements for these facilities based on a common set of environmental objectives and safeguards. We feel we could propose a single set of numeric water quality and design criteria for closure of the facility such that the facilities would not be subject to further regulation by this agency. Indeed the proposals made to date by Barrick are essentially identical for each of the three leach dumps. However, because the facilities have been constructed over a period of differing regulatory oversight, we have addressed the issues from the standpoint of minimum requirements. ***"Clean closure" neutralization criteria for the purposes of this discussion is defined as 0.2 mg/L weak acid dissociable cyanide and the standards of Table I of the Ground Water Quality Protection Rules, R317-6. In the event that the rinsate or pore space water cannot meet these concentrations then alternative concentration levels may be considered. Two approaches are available for determining appropriate alternate concentration limits. One approach would be to determine these levels based on levels demonstrated achievable by Column Neutralization testing by an independent party. A second approach would be for Barrick to demonstrate that levels above the "clean closure" criteria will not have a detrimental impact on ground water resources based upon a contaminant transport methodology.*** It may be beneficial to meet and discuss this approach after your consideration of this letter.

DUMP 1

Area 1 is an existing facility under the Ground Water Quality rules which exempts it from the requirement to apply for a permit unless required by the Executive Secretary. Since at this time a permit has not been required, Barrick may choose to close this facility under the conditions of the 1985 Construction Permit. The neutralization criteria of this permit for total cyanide to be less than 5 mg/L has been achieved leaving the placement of a suitable cap as the only remaining criteria to be satisfied. Thus, the plans Barrick submitted for closure of Area 1 through your October 29, 1992 correspondence have been referred to the Design Evaluation Section to coordinate Division interests in this matter. C.C. Patel has been assigned to review this closure proposal. Mr. Patel's review of this matter and his comments thereof should be received by Barrick within two weeks of this letter.

The closure plan neutralization criteria proposed by Barrick under the 1985 Construction Permit is not considered sufficient to abandon the facility as a "clean closure" in which the facility would not continue to be considered under the Ground Water rules as an "existing facility". Therefore, the possibility will remain that at some future time the Executive Secretary may call for a Ground Water Permit for Area 1, should ground water quality become an issue and concerns are raised. To reduce the potential environmental risk and thus Barrick's potential liabilities, Barrick should consider further neutralization prior to closure of this facility. Offsetting this risk is the fact that the placement of a well constructed clay cap and suitable runoff controls could minimize the infiltration through the tailings of Area 1 and thus reduce the concern of ground water discharge from this facility. We are aware that Barrick intends to use Area 1 as a storage and staging area for mine work to commence in the summer of 1993. Thus Barrick should weigh these considerations and choose the option that you believe best meets your needs.

DUMP 2

We are in receipt of your correspondence dated October 9, 1992 and October 2, 1992 concerning neutralization and closure aspects of Dump Leach Area 2. We agree with your suggestion that a meeting is in order to discuss final neutralization and closure issues for this facility. Because the neutralization procedures were discontinued for winter, now is the an appropriate time for resolving these matters.

Pursuant to the resolution of the Stipulation and Consent Order, Docket No. GW90-03(A), Barrick Submitted on March 31, 1992 Neutralization, Closure and Post Closure Monitoring Plans in response to the requirements of items 3, 4 and 5 of the order. In response to that submittal an evaluation was made of the Neutralization component of Barrick's submittal which was summarized in a letter from our office on June 15, 1992. Barrick responded in a July 10, 1992 letter and was then granted approval to use Tailing Impoundment Water in the initial phase of neutralization of Dump Leach No. 2. This approval was contingent upon satisfactory resolution

of all outstanding Neutralization Plan issues. Although this facility is also classified as an "existing facility", the Stipulation and Consent Order incorporated the more current philosophy on ground water and closure issues. Therefore, the following comments are provided in order to put these issues in perspective and satisfy specific compliance schedule requirements. Barrick is asked to consider these comments and respond within 60 days.

We are also in receipt of your letter of January 27, 1993 informing our Division of Barrick's intent to further utilize tailings impoundment water along with accumulated snow pack in order to achieve further neutralization at Dump 2. Although the further application of tailings impoundment water may be appropriate for now, referring to tailings impoundment water as "detoxified reclaim solution" is misleading. Although the cyanide destruction process reduces the concentration of the highly reactive cyanide prior to deposition of the tailings slurry in the tailings impoundment, it is not considered deminimus and the process does not address other parameters of potential concern including arsenic, mercury, selenium, thallium, nickel, fluoride, nitrates, sulfates and chlorides. This is important so as not to assume the water quality of the reclaim solution is construed to be the final neutralization criteria.

The use of the tailing impoundment water to achieve a preliminary reduction of cyanide values in the leach dumps prior to the application of a yet to be determined secondary treatment may still be appropriate. Barrick should determine the length of time for which the application of tailings impoundment water will have a beneficial neutralization effect or determine other appropriate criteria for determining when the application of tailings impoundment water should cease and secondary treatment commence. Column Testing of ore samples from the leach dumps might provide some insight into the possible effectiveness of further application of tailings impoundment water. Alternatively, Barrick might propose continued application of the tailings impoundment water until the out flow water chemistry approaches the water chemistry of the tailings impoundment water. The determination of an appropriate secondary treatment should also be made in the very near term. Barrick is aware of its options in this regard and should choose an option that is economical and practical as well as effective. The effectiveness and feasibility of the chosen secondary treatment should be demonstrated by Column Neutralization Testing in order to determine the appropriate detoxifying agents, contact time, volume and rate of application and to determine the expected chemical characteristics of the neutralized leachate. The expected characteristics of the leachate from the treated ore should be defined for not only cyanide but also for metallic species, nitrite, nitrate, fluoride, basic ions and total dissolved solids. Thus a proposal from Barrick in this regard could possibly be discussed at our next meeting.

Please be aware that the recovery of resource values during the neutralization process is appropriate only as long as the continuing effectiveness of the neutralization process can be demonstrated. Prolonged and unnecessary application of tailings impoundment water would be contrary to the intent of the Stipulation and Consent Order.

In the event that "clean closure" neutralization criteria are not achievable, the proposed cap consisting of 12 inches of clay, 3 feet of fill soil and 12 inches of top soil may be acceptable depending on the level of neutralization achieved. An appropriate intensity and duration of neutralization effort must be completed before consideration is given to acceptance of a neutralization effort that does not meet "clean closure" criteria. The length of the post-closure ground water monitoring period in turn will be determined based on the effectiveness of the neutralization and the level of protection provided by the cap design. The level of protection the cap will provide is directly related to the permeability to be achieved during cap construction. Barrick's proposal does not establish numeric criteria for liner permeability and fill soil compaction and thus we consider this to be an open issue. Establishing liner permeability specifications must be done before the closure and post closure aspects of this proposal can be finalized. At this time we would like to express some concern that the nominal 1% slope of the dump leach cap, may not be sufficient to provide adequate drainage and thus prevent pooling on and within the dump leach. A 2% slope is recommended.

DUMP 3

In accordance with the Compliance Schedule provisions of the Ground Water Quality Discharge Permit, No. UGW450001, a Conceptual Closure Plan for Dump Leach 3 was submitted by Barrick to the Division of Water Quality on October 28, 1991. According to the permit "this plan will form a conceptual basis for a final closure plan that will be prepared by Barrick at a date more imminent to closure." Since Barrick will likely operate Dump Leach 3 beyond the July 10, 1995 expiration date of the current permit, Final Neutralization and Closure Plan requirements will be a major focus of the next permit and thus the next permit application. In accordance with regulatory requirements, this application is due at least 180 days prior to the termination date of the current permit. According to the current permit this is the date by which Barrick shall also specify the Anticipated Date of Closure. Since regulations currently under consideration would establish neutralization, closure and post closure monitoring requirements we are willing to accept the current submittal as fulfilling the obligations of Part I.H.8 of Permit No. UGW450001 subject to the following understanding. The Closure requirements for the next term of the Ground Water Permit will be based on the most current regulatory standards. In the absence of standards that apply directly to metals leaching, requirements will be established based on the guidelines of the Ground Water Protection Regulations.

As a basis for determining appropriate neutralization and closure requirements many of the same concerns expressed for Dump Leach 2 are also relevant here. Specifically we will require that column neutralization testing be performed on ore samples from Dump Leach 3 in order to determine Best Available Technology for Neutralization at Dump 3. This testing should be concluded in advance and incorporated into Barrick's permit application due on January 10, 1995. This time table should allow Barrick to determine an effective and economical neutralization procedure prior to reissuance of this permit. Like Dump 2 the nominal 1% slope is also a concern here. The permeability of the clay portion of the cap design must be specified in

advance in order to determine its adequacy. The length of the Post Closure ground water monitoring period will be based on the degree of neutralization achieved, the strengths and weaknesses of the proposed cap design and current regulatory guidelines.

The Division of Water Quality hopes that the long delays in responding to some of the submittals referenced herein have not inconvenienced or hindered Barrick's operations. Please be assured that it is our intent to be more timely in our future responses. Once you have had a chance to consider the above, please contact Dennis Frederick at 538-6146 to establish a meeting date. If you have any questions concerning this correspondence please contact Mr. Frederick at your convenience.

Sincerely,

Utah Water Quality Board

for Don A. Ostler, P.E.
Executive Secretary

DAO:DAF:gt

cc: Tooele County Health Department
Utah County Health Department
C.C. Patel, Design Evaluation Section
Div. Oil, Gas & Mining

F:BARRICK\BARRIK26.LTR
FILE:GROUND WATER PERMIT NO. UGW450001; STIPULATION AND CONSENT ORDER DOCKET NO. 90-03-A; DESIGN EVALUATION SECTION
BARRICK - DUMP 1